

REMARKS/ARGUMENTS

Claims 1-62 are pending and were examined. The claims have been amended and cancelled as noted above. Reexamination and reconsideration of the claims, as amended, are respectfully requested.

As an initial matter, Applicant notes that claims 49 and 50 have been amended to correct their dependencies and overcome the lack of antecedent basis noted by the Examiner. Applicant apologizes for these errors.

Claims 1-9, 12-15, 20-23, 37, 38, 40-47, 50, 51, 54-56, 60 and 61 were rejected as being anticipated by U.S. Patent No. 6,740,082 to Shadduck. Such rejections have been overcome as follows.

Independent claims 1 and 44 have been amended to further recite that the vibrational transducer is cylindrical and that it includes longitudinal divisions at least one of which may be selectively energized to deliver acoustic energy into the luminal tissue. Additionally, both claims 1 and 44 have been amended to recite the use of positioning balloons, either a balloon surrounding the vibrational transducer where the energy is delivered through a transmissive medium within the balloon, or axially spaced-apart balloons where an acoustically transmissive fluid may be introduced between the balloons.

Neither Shadduck '082 nor any of other the cited art describes such methods or structures. While Shadduck '082 does teach a catheter for delivering energy to the lower esophageal sphincter (LES), the catheter is designed to engage electrodes against the tissue surface for delivering energy into the tissue. Thus, electrodes are asymmetrically positioned on the catheter body and a balloon or other expanding structure may be disposed on a side of the catheter opposite to the electrodes, for example as shown in Fig. 3B. Shadduck '082 does suggest that other energy sources, such as "high-energy focused ultrasound (HIFU)," may be utilized in their designs, but nowhere does Shadduck '082 teach that a cylindrical vibrational

transducer be positioned with a balloon to center the transducer within the esophagus or any other body lumen. Indeed, it is well-known in the art that HIFU is a directional energy source (that is what is meant by "focused"), so the substitution of a cylindrical vibrational transducer for the asymmetric electrodes of Shadduck '082 would be contraindicated.

For these reasons, it is believed that the rejections over Shadduck '082 for anticipation have clearly been overcome. As both independent claims 1 and 44 are novel over Shadduck '082, it is believed that the rejection for anticipation cannot be maintained against any remaining claims herein.

Nor does Applicant believe that any of the secondary references would teach the cylindrical transducer and/or balloon positioning structure. The most pertinent reference is probably U.S. Patent No. 5,720,287 to Chapelon et al. The Chapelon '287 patent specifically describes a rotating, directional transducer having aligned imaging and therapy portions. Thus, the requirement of claims 1 and 44 that the transducer be cylindrical and comprise at least two longitudinal divisions is clearly lacking in Chapelon et al., as well as all other art relied on herein.

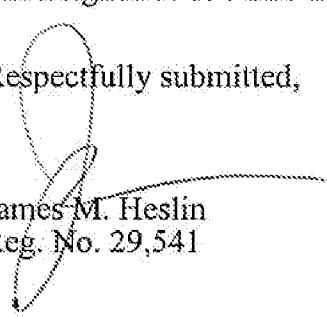
For these reasons, Applicant believes that independent claim 1 and 44, the only independent claims in the present application, clearly distinguish the Shadduck '082 patent, the Chapelon '287 patent, and all other art which has been relied on in the Office Action. Thus, it is believed that the independent claims as well as all remaining claims dependent thereon are condition for allowance. It is thus requested that the application be passed to issue at an early date.

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PATENT

If for any reason the Examiner believes a telephone conference would expedite prosecution of this application, please telephone the undersigned at 650-326-2400.

Respectfully submitted,



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